AF

listed item(s)

In re the application: Travis BALDWIN et al.

Confirmation No: 3697

No: **09/924,877**

Group Art Unit: 2675

Filed: August 8, 2001

Examiner: Chow, Doon Y.

For: Adjustable Display Device

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL NO:

In Re Application of:

Travis BALDWIN et al.

Serial No: 09/924,877

Filed: August 8, 2001

For: ADJUSTABLE DISPLAY DEVICE

APPELLANT'S BRIEF

01/31/2005 HDEMESS1 00000027 500563 09924877 01 FC:1402 500.00 DA

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Attorney Docket: RPS920010037US1/2132P

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Attorney Docket: RPS920010037US1/2132P

CERTIFICATE OF MAIL

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January 25, 2005.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:

Date: January 25, 2005

Travis BALDWIN et al.

Confirmation No. 3697

Serial No: 09/924,877

Group Art Unit: 2675

Filed: August 8, 2001

Examiner: Chow, Doon Y.

For: ADJUSTABLE DISPLAY DEVICE

Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

APPELLANT'S BRIEF ON APPEAL

Sir:

Appellant herein files an Appeal Brief drafted in accordance with the provisions of 37 C.F.R. §1.192(c) as follows:

I. REAL PARTY IN INTEREST

Appellants respectfully submit that the above-captioned application is assigned, in its entirety to International Business Machines Corporation.

II. RELATED APPEALS AND INTERFERENCES

• Appellants state that, upon information and belief, they are not aware of any co-pending appeal or interference which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Application Serial No. 09/924,877 (the instant application) as originally filed included claims 1-20. Claim 20 had been canceled, and claims 21-28 had been added. Claims 1-19 and 21-28 are pending. Claims 1-19 and 21-28 are on appeal and all applied prospective rejections concerning Claims 1-19 and 21-28 are being appealed herein.

IV. STATUS OF AMENDMENT

All amendments made to the instant application have been entered.

V. SUMMARY OF THE INVENTION

The present invention provides a display device comprising a display screen and a pivoting system coupled to the display device is disclosed. The pivoting system allows for rotation of the display screen from portrait to landscape; and for flipping the display from front to back, and for the display device to be folded into a compact form. The design in accordance with the present invention offers a range of freedom of movement not available with previous conventional designs. In a preferred embodiment, the display device 100 can be lifted approximately 130 mm from a flat folded position. A user can rotate the display 90° from portrait through landscape orientations. A user can also flip the display 180° from front to back, which will allow users on opposite sides of a desk to view the same image without turning the display around. All of these features may be used in combination, allowing the user to take

advantage of multiple positioning options. The display device also includes a compression

• device for facilitating changing a configuration of the display device. The compression device

makes changing the physical configuration of the display device quick and easy.

VI. ISSUES

The issue presented is:

(1) whether claims 1-19 and 12-28 are unpatentable under 35 U.S.C. § 103(a).

VII. GROUPING OF CLAIMS

Appellants hereby state that claims 1-19 and 12-28 form one group.

VIII. ARGUMENTS

A. Summary of the Applied Rejections

The final office action dated June 23, 2004 rejected claims 1-19, 22, 24, 26, and 28 under 35 U.S.C. 103(a) as being unpatentable over Braun et al. (hereinafter "Braun") in view of Chen et al. (hereinafter "Chen") and Bergeron Gull et al. (hereinafter "Bergeron"), and rejected claims 21, 23, 25, and 27 under 35 U.S.C. 103(a) as being unpatentable over Braun in view of Chen and Bergeron in view of Sweere et al. (hereinafter "Sweere"). In making the rejection, the Examiner stated:

Claims 1-19, 22, 24, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braun et al. (EP0887724) in view of Chen et al. (5812368) and Bergeron Gull et al. (6189842).

Regarding to claims 1-18, 22, 24, 26, and 28, Braun discloses a display device comprising: a flat display screen; a base portion; a support arm coupled to the base portion and a display screen frame for supporting the display screen; and a pivoting assembly coupled to the display screen for rotating the display screen from a first to second orientation (see drawings). Braun further suggests the display screen can be rotated 180 degrees (col. 2, lines 4-8).

Braun fails to disclose folding the display device into a compact form.

Chen, in the same display field, discloses a display device comprising two parallel support arms (21, Fig. 2) for supporting a display screen; a pin for rotating the display screen; a compression device (pivoting assembly) coupled to the display screen for compressing the display device from and open to a compact form (see figs. 5A-5C and 7B), wherein the compression device having a compression spring (233); and the support arms creates a "Z" shape as the display device is moved to and from a stored position (see figs. 5A-5C and 7B).

It would have been obvious to one ordinary skill in the art to incorporate Chen's display device into Braun's invention because it allows Braun's display device to be folded into a compact form so that the display device occupied less space.

Braun also fails to disclose rotating the display screen from portrait to landscape orientation.

Bergeron, in the same display field, discloses rotating the display screen from portrait to landscape orientation to adjust the width and the height of the display screen (see abstract and column 1, lines 32-38).

It would have been obvious to one of ordinary skill in the art to incorporate Bergeron's rotation means in Braun's invention because of the same purpose as Bergeron uses in his invention, which is to adjust the width and the height of the display screen. ...

The Examiner stated the following in response to the previous arguments against these rejections:

Applicant's arguments filed 4/9/04 have been fully considered but they are not persuasive.

Applicant argues that Braun, Chen or Bergeron does not disclose "a compression device coupled to the display device for facilitating changing a configuration of the display device" as recited in the independent claims. The examiner disagrees with applicant's arguments because Chen clearly discloses a pivoting assembly coupled to the display screen for compressing the display device from an open position to a compact position. The pivoting assembly is clearly equal the compression device as claimed. Chen also discloses the pivoting assembly comprising a compression spring (233)

The Examiner stated the following in the Advisory Action dated October 25, 2004:

See reasons presented in the previous office action.

Appellants respectfully request that the Board reverse the Examiner's final rejection of the pending Claims.

B. The Cited Prior Art

• Braun describes a flat panel display device that can be flipped from one position to
• another position and describes a pivot axis that passes through or near the center of mass of the
display so that the display is symmetric about the axis. The display device includes a support
member and a display member, such as a flash panel display, having a display surface. The
display member is responsive to an electrical signal to display an image on the display surface
and is mounted on the support member so as to be pivotably rotatable from a first viewing
position in which the display surface may be viewed from at least a first viewing direction to at
least a second viewing position in which the display surface may be viewed from at least a
second viewing direction.

Chen describes a monitor viewing angle adjusting assembly that can be freely adjusted to almost any desired inclined position. The assembly includes a monitor, a supporting arm assembly, and a base. The supporting arm assembly includes two parallel and symmetrical supporting arms, each of which includes a first arm portion and a second arm portion extending in opposite directions in one plane and slightly bent toward each other at their joint. The monitor and the base are pivotally connected to circular ends of the first and the second arm portions of the supporting arms, respectively, via turning-limit assemblies and locating brackets. The monitor can be turned relative to the supporting arms and the supporting arms can be turned relative to the base, so that the monitor can be adjusted to almost any angular position relative to the base and a viewer may select a viewing angle most suitable for him. When the monitor is adjusted to be parallel with the base, the whole monitor assembly can be hung on a vertical wall to effectively save the space required to pack and store the monitor assembly.

Bergeron describes a tilt and swivel adjustment of flat panel display having detents for landscape and portrait positions and a kickout for preventing contact between flat panel display and base. A stand for the display includes a neck member coupled to the base member and a

riser member, which is slidable with respect to the neck member. The display is mounted to an upper portion of the riser member via a swivel apparatus, which allows a user to pivot the display between landscape and portrait orientations. The swivel apparatus includes a cam and corresponding ramp. When the display is pivoted between the portrait and landscape orientations, the cam and ramp cause the display to be tilted with respect to the stand such that a lower portion of the display is tilted away from the base member, thereby preventing contact therebetween. The swivel apparatus includes a bearing member, which is mounted between the display and a portion of the swivel apparatus, which is pivotable with respect to the display. The bearing member includes a bearing surface providing a wear-resistant and smooth frictional pivot coupling. The bearing member also includes one or more integrally formed projections, each of which mates with a first corresponding receptacle when the display is in the portrait orientation and with a second corresponding receptacle when the display is the landscape orientation. Thus, the bearing member provides both a bearing surface and detents.

C. Claims Are Not Unpatentable Under 35 U.S.C. § 103(a)

The present invention provides a display device comprising a display screen and a pivoting system coupled to the display device is disclosed. The pivoting system allows for rotation of the display screen from portrait to landscape; and for flipping the display from front to back, and for the display device to be folded into a compact form. The design in accordance with the present invention offers a range of freedom of movement not available with previous conventional designs. In a preferred embodiment, the display device 100 can be lifted approximately 130 mm from a flat folded position. A user can rotate the display 90° from portrait through landscape orientations. A user can also flip the display 180° from front to back, which will allow users on opposite sides of a desk to view the same image without turning the

display around. All of these features may be used in combination, allowing the user to take advantage of multiple positioning options. The display device also includes a compression device for facilitating changing a configuration of the display device. The compression device makes changing the physical configuration of the display device quick and easy. Braun in view of Chen and Bergeron does not teach or suggest these features, as discussed below.

Applicants submit that Braun, Chen, and Bergeron singly or in combination do not disclose the present invention, including "a compression device coupled to the display device for facilitating changing a configuration of the display device," as recited independent claim 1.

The Examiner has stated that Chen "discloses a pivoting assembly coupled to the display screen for compressing the display device from an open position to a compact position." However, the pivoting assembly is not the same as the "compression device," as recited in independent claim 1. The pivoting assembly of Chen may "guide" the display device from an open position to a compact position (Figures 5A-5C). However, the arms of the pivoting assembly of Chen must be manually moved by a user, without assistance from any device (Figure 2). Nowhere does Chen teach or suggest a "compression device" that actively facilitates changing the configuration of the display device. An advantage of the compression device of the present invention is that a user can change the physical configuration of the display device with less effort, because the compression device does some of the work for the user (Figure 10 and page 6, lines 1-5 of the specification). Chen does not provide this benefit, because there is no compression device in Chen.

The Examiner has referred to element 233 of Chen as being a compression spring. However, Figure 2 of Chen clearly shows that element 233 is not a compression spring but is instead a washer. In fact, column 2, lines 29-30, clearly describe element 233 as a "spring washer." A spring washer is a disk of metal that is formed in an irregular shape so that when the

washer is loaded it deflects, acts like a spring, and provides a preload between two surfaces. In contrast, a compression spring is wound or constructed to oppose spring compression along the axis of wind. Even if element 233 were a compression spring, it still would not facilitate "changing a configuration of the display device." Instead, it would provide a preload between the washer 232 and the surface of the circular end of the supporting arm (Figure 2).

However, like Chen, nowhere does Braun describe or suggest the compression device as recited in the present invention. Instead, Braun describes a flat panel display device that can be flipped from one position to another position and describes a pivot axis that "passes through or near the center of mass of the display so that [the] display is symmetric about the axis" (column 3, lines 31-47). However, nowhere does Braun describe or suggest the compression device as recited in the present invention.

Finally, Bergeron does not describe or suggest the compression device of the present invention. Bergeron describes a spring 270 (Figure 2b) but the spring is not utilized for facilitating movement of a display but is instead utilized for "preventing undesired tilting of the display" (column 4, lines 46-51). In accordance with the present invention, the compression device facilitates changing the configuration of the display device in a quick and easy manner.

Therefore, Braun in view of Chen and Bergeron does not teach or suggest the cooperation of elements as recited in independent claim 1. Accordingly, claim 1 is allowable over the cited references.

Similar to claim 1, independent claims 11, 15, and 19 recite a "compression device coupled to the display device for facilitating changing a configuration of the display device." As described above, with respect to independent claim 1, the cited references do not teach or suggest this feature. Accordingly, the above-articulated arguments related to independent claim 1 apply

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with equal force to claims 11, 15, and 19. Therefore, claims 11, 15, and 19 are allowable over the cited references for at least the same reasons as claim 1.

Dependent claims 2-10, 12-14, 16-18, and 21-28 depend from independent claims 1, 11, 15, and 19, respectively. Accordingly, the above-articulated arguments related to independent claims 1, 11, 15, and 19 apply with equal force to claims 2-10, 12-14, 16-18, and 21-28, which are thus allowable over the cited references for at least the same reasons as claims 1, 11, 15, and 19.

In view of the foregoing, Applicants respectfully submit that the recited invention is not taught, shown, or suggested by the cited art.

Accordingly, Appellants respectfully request withdrawal of the rejection under 35 U.S.C. 103(a) and respectfully requests that the Board reverse the final rejection of Claims.

E. Summary of Arguments

For all the foregoing reasons, it is respectfully submitted that Claims 1-19 and 21-28 (all the Claims presently in the application) are patentable for defining subject matter, which would not have been unpatentable under 35 U.S.C. § 103(a) at the time the subject matter was invented. Thus, Appellants respectfully request that the Board reverse the rejection of all the appealed Claims and find each of these Claims allowable.

Note: For convenience of detachment without disturbing the integrity of the remainder of pages of this Appeal Brief, Appellants' "APPENDIX" section is contained on separate sheets following the signatory portion of this Appeal Brief.

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- This Brief is being submitted in triplicate, and authorization for payment of the required
- Brief fee is contained in the cover letter for this Brief. Please charge any fee that may be necessary for the continued pendency of this application to Deposit Account No.

Respectfully submitted,
SAWYER LAW GROUP LLP

January 25, 2005

Date

Joseph A. Sawyer, Jr.

Attorney for Applicant(s)

Reg. No. 30,801 (650) 493-4540

IX. APPENDIX

- 1. (previously presented) A display device comprising:
 - a display screen;
- a pivoting assembly coupled to the display screen, the pivoting assembly allowing for rotation of the display screen from portrait to landscape orientation, for flipping the display from front to back, and for the display device to be folded into a compact form; and

a compression device coupled to the display device for facilitating changing a configuration of the display device.

- 2. (original) The display device of claim 1 wherein the pivoting assembly includes a base portion, a support arm assembly coupled to the base portion; and a display screen frame coupled to the support arm assembly for holding the display screen.
- 3. (original) The display device of claim 1 wherein the support arm assembly comprises a support arm.
- 4. (original) The display device of claim 2 wherein the support arm assembly comprises first and second support arms which are disposed in a substantially parallel relationship.
- 5. (original) The display device of claim 2 wherein the frame includes a pin which allows for the rotation of the display from portrait to landscape orientation.

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- 6. (original) The display device of claim 2 wherein the support arm assembly creates a "Z" shape as the display device is moved to and from a stored position.
- 7. (original) The display device of claim 3 wherein the display screen can be rotated up to ninety (90) degrees.
- 8. (original) The display device of claim 4 wherein the display screen can be rotated up to ninety (90) degrees.
- 9. (original) The display device of claim 3 wherein the display screen can be flipped up to one hundred eighty (180) degrees from front to back.
- 10. (original) The display device of claim 4 wherein the display screen can be flipped up to one hundred eighty (180) degrees from front to back.
 - 11. (previously presented) A display device comprising:a display screen;

a pivoting assembly coupled to the display screen, wherein the pivoting assembly includes a base portion, a support arm assembly coupled to the base portion, and a display screen frame coupled to the support arm assembly for holding the display screen, wherein the support arm assembly comprises a support arm, wherein the frame includes a pin which allows for the rotation of the display from portrait to landscape orientation, the pivoting assembly allowing for rotation of the display screen from portrait to landscape orientation, for flipping the display from front to back, and for the display device to be folded into a compact form; and

a compression device coupled to the display device for facilitating changing a configuration of the display device.

- 12. (original) The display device of claim 11 wherein the support arm assembly creates a "Z" shape as the display device is moved to and from a stored position.
- 13. (original) The display device of claim 11 wherein the display screen can be rotated up to ninety (90) degrees.
- 14. (original) The display device of claim 11 wherein the display screen can be flipped up to one hundred eighty (180) degrees from front to back.
 - 15. (previously presented) A display device comprising:a display screen;

a pivoting assembly coupled to the display screen, wherein the pivoting assembly includes a base portion, a support arm assembly coupled to the base portion, and a display screen frame coupled to the support arm assembly for holding the display screen, wherein the support arm assembly comprises first and second support arms which are disposed in a substantially parallel relationship, wherein the frame includes a pin which allows for the rotation of the display from portrait to landscape orientation, the pivoting assembly allowing for rotation of the display screen from portrait to landscape orientation, for flipping the display from front to back, and for the display device to be folded into a compact form; and

a compression device coupled to the display device for facilitating changing a configuration of the display device.

- 16. (original) The display device of claim 15 wherein the support arm assembly
 creates a "Z" shape as the display device is moved to and from a stored position.
- 17. (original) The display device of claim 15 wherein the display screen can be rotated up to ninety (90) degrees.
- 18. (original) The display device of claim 15 wherein the display screen can be flipped up to one hundred eighty (180) degrees from front to back.
 - 19. (previously presented) A display device comprising:a thin film transistor (TFT) display screen;

a pivoting assembly coupled to the display screen, wherein the pivoting assembly includes a base portion, a support arm assembly coupled to the base portion; and a display screen frame coupled to the support arm assembly for holding the display screen, wherein the support arm assembly comprises first and second support arms which are disposed in a substantially parallel relationship, wherein the frame includes a pin which allows for the rotation of the display from portrait to landscape orientation, wherein the support arm assembly creates a "Z" shape as the display device is moved to and from a stored position, the pivoting assembly allowing for rotation of the display screen from portrait to landscape orientation; for flipping the display from front to back, and for the display device to be folded into a compact form; and

a compression device coupled to the display device for facilitating changing a configuration of the display device.

20. (canceled)

- 21. (previously presented) The display device of claim 1 wherein the compression device is a gas-charge piston.
- 22. (previously presented) The display device of claim 1 wherein the compression device is a compression spring.
- 23. (previously presented) The display device of claim 11 wherein the compression device is a gas-charge piston.
- 24. (previously presented) The display device of claim 11 wherein the compression device is a compression spring.
- 25. (previously presented) The display device of claim 15 wherein the compression device is a gas-charge piston.
- 26. (previously presented) The display device of claim 15 wherein the compression device is a compression spring.
- 27. (previously presented) The display device of claim 19 wherein the compression device is a gas-charge piston.
- 28. (previously presented) The display device of claim 19 wherein the compression device is a compression spring.